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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,026	03/07/2007	Gereon Vogtmeier	PHDE030404US	1840

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595 MINER ROAD
CLEVELAND, OH 44143

EXAMINER

ELEY, JESSICA L

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2884

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/596,026	Applicant(s) VOGTMEIER ET AL.	
	Examiner JESSICA L. ELEY	Art Unit 2884	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>25 March 2006</u> . | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5, 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Pritzkow US 4,521,689.

Regarding claims 1 Pritzkow teaches a detector comprising a base structure **3**, **1** with threaded fastener **67**, i.e. guide elements,

detector modules **50** with at least one respective guide structure **73** for positioning relative to at least one of the respective guide elements **67**, wherein

the guide elements **67** extend in a first direction with respect to base plate **3** shall be called the z direction,

at least two of the detector modules, in the case of Pritzkow five detector modules however Pritzkow also allows for this number to increase or decrease (column 6 lines 20-24), are positioned consecutively on one of the guide elements in the first direction (FIG. 7) and

there are guide elements **67** which are separated from one another in a second direction with respect to base plate **1** shall be called -z direction.

Regarding claim 2 Pritzkow teaches the detector of claim 1, wherein at least two of the detector modules **50** in the second direction, referred to as –z direction, are arranged consecutively (FIG. 7) on at least two of the guide element **67** located in base plate **1**.

Art Unit: 2884

Regarding claim 3 Pritzkow teaches the detector of claim 1, wherein at least one spacer element **75** is arranged on at least one of the guide elements **67** between the base structure **1** or **3** and one of the detector modules **50** or between two of the detector modules **50**.

Regarding claim 5 Pritzkow teaches the detector of claim 1, wherein the base structure is curved in the second direction (column 3 lines 17-19).

Regarding claim 8 Pritzkow teaches the detector of claim 1, wherein at least one fastener, i.e. clamping element, is provided for fixing one of the detector modules (column 5 lines 1-3).

Regarding claim 9 Pritzkow teaches the detector of claim 1, wherein the detector modules each have at least one respective continuous recess **71** in the first direction.

Regarding claim 10 Pritzkow teaches an X-ray device, such as an array for computerized tomography (column 6 lines 31-34) in which a detector as claimed in claim 1 occurs.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Art Unit: 2884

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4, 6, 7, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pritzkow US 4,521,689.

Regarding claim 4 Pritzkow teaches the detector of claim 1, wherein the guide elements **73** in the second direction are arranged next to one another with a spacing pattern (FIG. 5). Pritzkow does not teach what the dimensions are for the extent of the detector modules in the second direction and the spacing between two of the guide elements. However, Pritzkow does teach that the number of detector modules can vary with respect to the guide elements (column 6 lines 20-24). Thus it would be obvious to a person of ordinary skill in the art at the time the invention was made to vary the number of detectors located in the spacing between two of the guide elements, one such scenario would ultimately result in the extent of the detector modules in the second direction substantially equaling a spacing between two of the guide elements.

Regarding claim 6 Pritzkow teaches the detector of claim 1, but does not specifically teach at least two of the detector elements have a different shape. However in light of the teachings in column 3 lines 18-20) where Pritzkow teaches that the detector array may be curved, it would be obvious to a person of

Art Unit: 2884

ordinary skill in the art at the time the invention was made to have two of the detector modules **50** of slightly different shape so as to fully accommodate the curve without loss of fill space.

Regarding claim 7 Pritzkow teaches the detector of claim 1, wherein the guide elements **67** are threaded fasteners. However it would be obvious to a person of ordinary skill in the art that the threaded fastener may be substituted with a non-threaded fastener such as a rod since this is only a matter of design choice and involves only routine skill in the art.

Regarding claim 11 Pritzkow teaches a method of manufacturing a detector, in particular for use in an X-ray device, such as an array for computerized tomography (column 6 lines 31-34) , in which detector modules **50** are slipped each on at least one guide element **67** by means of at least one respective guide structure **73** of the respective detector module whereby the guide elements extend in a first direction of a base structure **3** and wherein at least two of the detector modules, in the case of Pritzkow five detector modules however Pritzkow also allows for this number to increase or decrease (column 6 lines 20-24), being slipped onto one of the guide elements **67** and there are detector modules that are separated from one another in a second direction with respect to base structure **1**. Pritzkow does not teach the detector modules being consecutively slipped onto the guide elements, however it would be obvious to a one having ordinary skill in the art at the time the invention was made to consecutively assemble the detector elements since this step involves only routine skill in the art.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kyyhkynen US 20020130266 teaches a modular imaging apparatus that only uses one fastener instead of more than one for each module unit. Saito et al. US 6,396,898 teaches a modular X-ray CT

Art Unit: 2884

apparatus that uses a fixing stand to mount the detector module, however this was not used because of the presence of only one detector module in a first direction.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSICA L. ELEY whose telephone number is (571)272-9793. The examiner can normally be reached on Monday - Thursday 8:00-6:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/Constantine Hannaher/
Primary Examiner, Art Unit 2884**

/J. L. E./
Examiner, Art Unit 2884